(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 30 June 2005 (30.06.2005)

PCT

(10) International Publication Number WO 2005/059211 A1

(51) International Patent Classification⁷:

D01F 6/60

(21) International Application Number:

PCT/EP2004/013542

(22) International Filing Date:

30 November 2004 (30.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

03028091.1

9 December 2003 (09.12.2003) EP

- (71) Applicant (for all designated States except US): TELJIN TWARON B.V. [NL/NL]; Westervoortsedijk 73, NL-6827 AV Arnhem (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HENDRIKS, Anton, Johannes, Josef [NL/NL]; Dr. Ariensstraat 8, NL-6663 AL Lent (NL). TIECKEN, Jan, Davis, Cornelis [NL/NL]; Meeuwstraat 23, NL-6942 KK Didam (NL). GROTENDORST, Harrie [NL/NL]; Golden Delicious 47, NL-6922 AP Duiven (NL). JOURNEE, René [NL/NL]; Lombarts 2, NL-6922 AN Duiven (NL). OLDENZEEL, Mirjam, Ellen [NL/NL]; Grobbenhof 7, NL-6932 CK Westervoort (NL).

- (74) Agent: HEIMANN, Anette; CPW GmbH, Kasinostrasse 19-21, 42103 Wuppertal (DE).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ARAMID FIBRILS

(57) Abstract: The invention relates to aramid fibrils having in the wet phase a Canadian Standard Freeness (CSF) value less than 100 ml, after drying a specific surface area (SSA) less than $7 \text{ m}^2/\text{g}$, and a weight weighted length for particles having a length > 250 μ m (WL 0.25) less than 1.2 mm, and to a method of preparing the fibrils comprising the steps a. polymerizing an aromatic diamine and an aromatic dicarboxylic acid halide to an aramid polymer, in a mixture of N-methylpyrrolidone or dimethyl- acetamide and calcium chloride or lithium chloride to obtain a dope wherein the polymer is dissolved in the mixture and the polymer concentration is 2 to 6 wt. %, b. converting the dope to fibrils by using a jet spin nozzle under a gas stream, and c. coagulating the fibrils using a coagulation jet.

